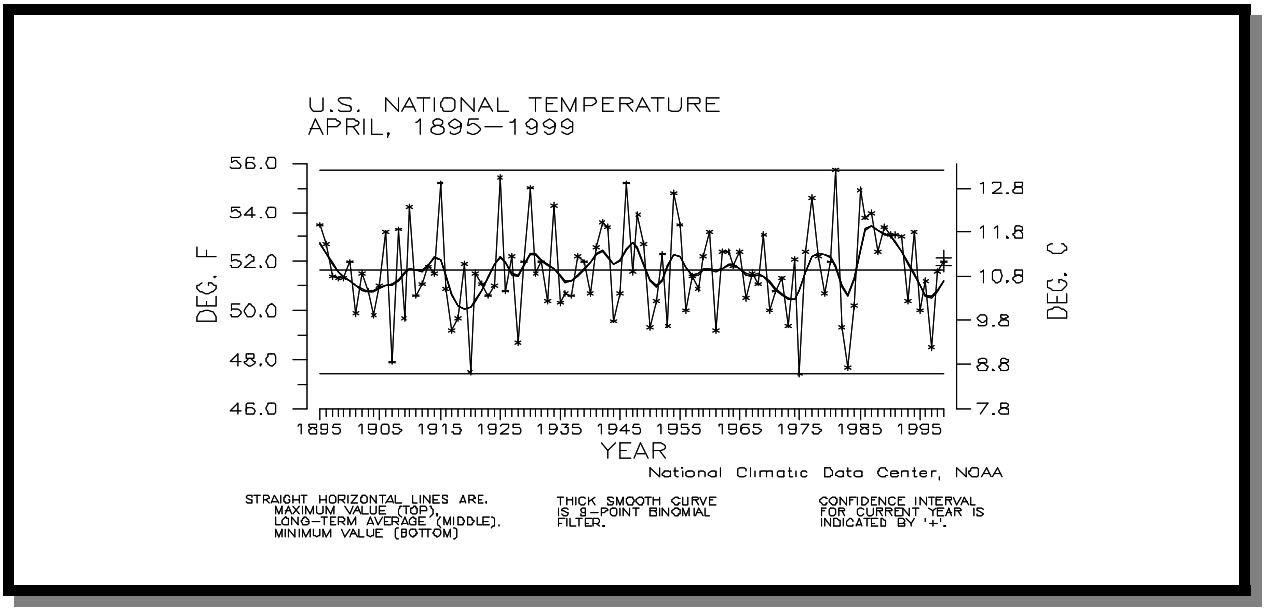
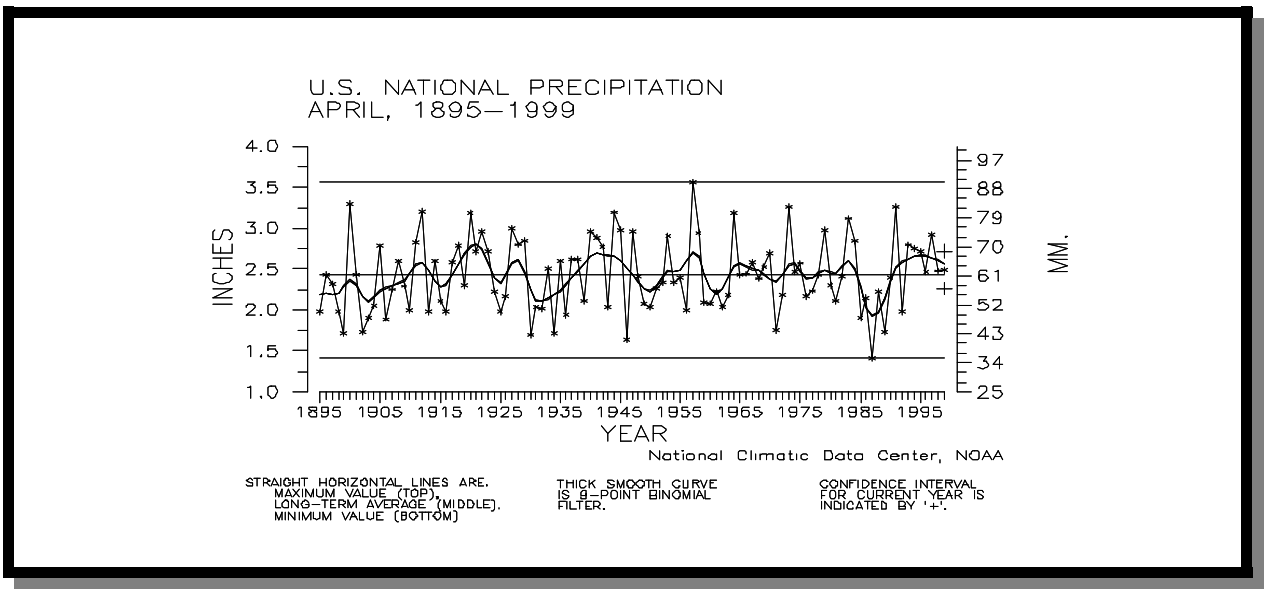
Monthly Activity Report

April 1999





Preliminary data for April 1999 indicate that temperature averaged across the contiguous U.S. was above the long-term mean, ranking as the 46th warmest April since 1895 (top figure). Over 12 percent of the country was much warmer than normal, while less than five percent of the country was much cooler than normal.

April 1999 was the 43rd wettest such month since 1895 (bottom figure). Nearly 21 percent of the country was much wetter than normal, while about 11 percent of the country was much drier than normal. The last seven such months have been at, to above, the long-term mean.

DIRECTOR'S HIGHLIGHTS

Data Rescue - A Site Visit

Several National Climatic Data Center personnel, including Center Director Tom Karl, joined Susan Zevin and Tim Roberts of the National Environmental Satellite, Data, and Information Service for a site visit at Image Entry (IE) in London, KY, one of the Environmental Data Rescue Program contractors. Image Entry is currently keying daily cooperative data, 1895-1948, and hourly precipitation data from the early part of this century. A tour was taken of the IE production facilities in London and Booneville, KY, where the work is being performed. The group had an opportunity to discuss concerns with the IE keying staff, and to see a demonstration of the new Remote Production Access system.

Monthly Monitoring Report

The report for March 1999 was made available on the Web on April 15th. The average temperature for the globe was the 4th warmest based on the 1880-1998 period of record. Globally, precipitation also averaged well above the 1900-1998 mean. For the U.S., the most notable aspect for March was the lack of precipitation, with March 1999 the 16th driest in the 1885-1998 period of record. Florida experienced its 5th driest February-March period, increasing concerns of wildfires for the second consecutive spring season. Portions of the Pacific Northwest states, in contrast, have record snow packs due to persistent storminess linked to La Niňa conditions.

Global Precipitation Climatology Project

The National Climatic Data Center (NCDC) will begin work on the development of a global precipitation climatology for the U.S. Army Topographic Engineering Center (TEC). The goal is to first develop a methodology for assigning stations to specific precipitation categories in the U.S., and then expand this methodology to other areas of the globe. The study will focus on regional, monthly and seasonal characteristics, with the final product being a series of global maps. The project is expected to run 3 years. Dr. Paul Krause from the U.S. Army TEC will visit NCDC April 27-28, 1999, to discuss the project.

CCl/CLIVAR Chairman

Yadowsum Boodhoo, President of the World Meteorological Organization's Commission for Climatology, has invited Dr. Tom Peterson of the National Climatic Data Center to serve as Chairman of the CCl/CLIVAR joint Working Group on Climate Change Detection. Dr. Peterson has accepted.

CLIMATE DATA AND INFORMATION SERVICES

✦ Data and Information Distribution

Worldwide Weather Events and Disasters

The National Climatic Data Center (NCDC) updated and enhanced its Web page on worldwide weather events of 1991-1999 (http://www.ncdc.noaa.gov/ol/reports/weather-events.html) by adding additional links and showing a more global focus. The page now links to over 60 NCDC reports dealing with U.S. and international climatic/weather events and extremes of the past decade. This includes links to each of this year's monthly Climate Watch pages, which highlight particular events each month, a special section for NCDC reports on international events (outside the U.S.), and a section with links to 30 Web sites with worldwide natural disaster information, such as "Munich Re" and "Disaster Relief." The page is also accessible via the "Climate Extremes and Weather Events" button on NCDC's Home Page.

Climate Extremes Index and the Greenhouse Climate Response Indices

The National Climatic Data Center (NCDC) provided the Environmental Protection Agency's (EPA) Center for Environmental Information and Statistics with the latest available graphs of the Climate Extremes Index and the Greenhouse Climate Response Indices for an EPA presentation on National Oceanic and Atmospheric Administration data and information. The EPA was interested in describing how other agencies develop climate indices and indicators. NCDC will determine how to produce these indices on a continuing basis for the monthly monitoring effort.

Technical Report 99-01 Released

Technical Report 99-01, "1998 Atlantic Tropical Storms: Views from the NOAA Satellites" has been released by the National Climatic Data Center. The report describes each of last season's 14 tropical storms (including 10 hurricanes) in some detail, including rainfall tables for four of the hurricanes, one or more satellite images for each storm, and selected Next Generation Weather Radar images. The season was one of the most deadly and damaging on record, with over 11,000 fatalities and damages approaching $20 billion for North America. Color copies of the report are available, and the report will be placed on-line for users to download. This is the 20th technical report in a series started in 1993 with a report on the March 1993 "Superstorm." All are available on-line at http://www.ncdc.noaa.gov/ol/climate/bibliography.html.

Radiosonde Data

An update to the Radiosonde Data of North America CD was sent to the replicator for production. This CD is a joint effort between the National Climatic Data Center and the National Oceanic and Atmospheric Administration's Forecast Systems Laboratory, and it includes data for 1997 as well as providing complete sounding data for 1994-1996. Previous annual updates included data only to 100mb. Data for the complete CD set begins in 1946 and includes all available stations in the U.S., Canada, Mexico and the Caribbean.

Data Rescue Activities

During the month of April, the Meteorological

Paper Imaging project shipped 3,134 boxes of paper records to the West Virginia contractor. This gives a total of 31,409 units shipped, or approximately 13.5 million pages. Some 179 CD-ROMs were received from the contractor, containing 1,451,889 images (pages). In total, the National Climatic Data Center has now received 1,408 CD-ROMs containing 11,351,560 images. A total of 1,328 of the CD-ROMs have been processed through the quality assurance program.

Under the Data Rescue project to key historical Cooperative observations, a total of 2,629 microfiche were shipped to the Kentucky contractor, giving a total of 8,964 shipped. The shipment of Historical Climatological Network stations has now been completed. The next effort will be to select other long-term stations beginning with Alabama and then work through the states. The Kentucky contractor submitted one tape containing the keyed data for 237 fiche. They expect to ship the backlog of keyed data in May.

Web CliServ Search Capabilities Expanded

Search capabilities were added to Web CliServ this week that allow Web users to locate stations by zip code, which adds to the existing capability of searches by station name, city, state, county, division, call sign and station numbers. The new search currently matches zip code to a city and displays stations for which that city has been identified. If no stations exist for that city, a list of stations +/-30min lat./long. is displayed.

New Heating and Cooling Degree Day Web Page

A new Web page was placed on-line for heating and cooling degree day data. It can be found in "What's New" and in the On-Line Document Library under Publications at www.ncdc.noaa. gov.

Hierarchical Data Storage System (HDSS)

National Climatic Data Center and IBM software engineers migrated the storage management software from UniTree (unsupported) to the High Performance Storage System (HPSS). The new software provides unlimited license storage levels (the previous system was only permitted to reach two terabytes before significant costs were incurred), better management of "classes of data," and more efficient manipulation of data sets. No significant problems have occurred following the conversion.

✦ Interesting Requests

NCDC's On-Line Data To Be Used in Mathematics Textbook

The National Climatic Data Center received a request for permission to use several charts composed of data for Honolulu, HI; Norfolk, VA; San Francisco, CA; St. Louis, MO; and Flagstaff, AZ, in a 7th grade textbook. The data were retrieved from the on-line Local Climatological Data annual and monthly publications. The Everyday Learning Corporation will be using these charts in a new publication entitled *Everyday Learning Middle Grades Mathematics*, which will be published in September 1999.

Tampa vs. Orlando for the 2012 Summer Olympics

Central Florida has been selected as the region to host the Summer Olympics for the year 2012. Olympic officials are preparing for this event by focusing on the climate of the area. After a formal request from the committee, the National Weather Service (NWS) has agreed to assist by conducting a meteorological comparison between Tampa and Orlando that will determine which of the two cities would be more climatologically suitable for the games. The National Climatic Data Center provided the following products to the NWS: *Climatography of the US #'s 81* and *84*, showing climatic normals for several surrounding locations, *Local Climatological Data Annual Summaries* for Tampa and Orlando, displaying historical data and some climatological means and

extremes, and the *International Station Meteorological Climate Summary* CD-ROM presenting various climate tables for central Florida and the surrounding area.

✦ Technology Applications

U.S. Climate Atlas

The National Climatic Data Center's (NCDC) work on the development of the new U.S. Climate Atlas has resumed after a 6-month hiatus due to work on the Y2K/Unisys migration project. Over the past 6 months, Oregon State University (OSU) has continued to generate map products and NCDC now has nearly 200 maps to review. The contract with OSU was extended to September 30, 1999, to allow NCDC to complete its review process. Phase 2 of the project also called for NCDC to create over 300 additional maps (ones that didn't require PRISM) which should be completed by December 1999.

1971 - 2000 Normals Development

National Climatic Data Center (NCDC) personnel are reviewing procedures and papers used in development of earlier normals (1951-1980 and 1961-1990) to determine what techniques will be beneficial or required for the 1971-2000 Normals production. They are also examining reports on the behavior of the Automated Surface Observation System (ASOS) instrumentation in an effort to determine the impact ASOS data will have on the upcoming Normals period. Discussions on Normals and Normals-product development were held during and after the Regional Climate Center Directors Meeting held at NCDC April 20 -22.

✦ Regional/State Climate Centers

Regional Climate Center Directors Meet at NCDC

The Directors of the six Regional Climate Centers (RCC) and the President of the American Association of State Climatologists met with the staff of the National Climatic Data Center (NCDC) April 20-22, 1999. A wide range of issues were discussed, including customer servicing, climate monitoring and impact assessment, data flow, applied research, and funding. It was decided that the staff exchange for user services would continue, and that a joint research project would be undertaken, tentatively set to involve the development of a wind climatology. The Directors and NCDC staff also discussed the best approaches to rejuvenate the State Climatologist Program.

Possible Collaboration Projects

The National Climatic Data Center discussed several projects for possible collaboration with the Regional Climate Center (RCC) Directors during their meeting held April 20-22 at NCDC. These include using RCC or Unified Climate Access Network (UCAN) software to generate the Clim20 products for the 1961-1990 period; researching the impact of ASOS observations on the 1971-2000 normals; investigating alternative methods for computing the normals and determine the impact on users if the method is changed; assisting the NCDC in the review of Geographic Information System generated maps for the new U.S. Climate Atlas; and developing a new wind climatology for the U.S.

Quality Control Checks

The National Climatic Data Center (NCDC) is preparing a spreadsheet of quality control checks for daily data that are made by NCDC and the Regional Climate Centers (RCC). The NCDC operational and rescue and the Midwestern Regional Climate Center rescue checks are currently included. Input from other RCCs is expected by the end of May. The spreadsheet will serve as an informational database for potential upgrade of existing systems and development of quality control systems for new data sets.

SCIENTIFIC AND PROFESSIONAL ACTIVITIES

✦ Climate and Global Change

U.S. National Assessment Workshop

The National Climatic Data Center's (NCDC) Principal Scientist, Dr. David Easterling, participated in the Annual Workshop of the U.S. National Assessment: The Potential Consequences of Climate Variability and Change, held in Atlanta, April 12-15. He met with representatives from the Great Lakes region and participated in the National Assessment Synthesis Team meetings.

EPA "Global Warming" Workshop

On April 28, 1999, the National Climatic Data Center's (NCDC) Principal Scientist, Dr. David Easterling, participated in the Environmental Protection Agency (EPA) sponsored workshop "Global Warming: What Does It Mean for the Midwest" in Kansas City, MO. He gave a presentation on observed climate changes in the Midwest placing changes in a global and national perspective. This workshop was one of a series sponsored by the EPA in an attempt to educate potential business and government stake-holders on the potential impacts of climate change and how they can address the issue.

✦ Working Groups/Committees Meetings

Atmospheric Observation Meeting

Tom Peterson participated in a meeting of the Global Climate Observing System (GCOS) Atmospheric Observation Panel. Specific plans were formulated for Global Surface Network (GSN) and Global Upper Air Network implementation. This is critically important to the National Climatic Data Center's (NCDC) role of the archive center for these networks. NCDC received a draft outlining procedures that the DWD GSN Monitoring Center will use to transmit the GCOS Upper Air Network data to NCDC for distribution. The program is scheduled to begin with January 2000 data. NCDC is tasked with ensuring the data are available through the World Data Center-Asheville.

NAOS Council Meeting

Mr. August Shumbera of the National Climatic Data Center attended the North American Observing System (NAOS) Council meeting April 22, 1999. Contributions from the climate community were discussed, in addition to updates on testing hypotheses and new observing system developments. Council commented that the climate community presented some test results and opinions reflected in White Papers, but full testing of proposed hypotheses for testing impact on climate by modifying existing observing systems have so far not been fully addressed. Council stated that when recommending configuration of observing systems to management, climate inputs, including opinions, would be considered.

COMDEX Conference

Steve Evans of the National Climatic Data Center attended the COMDEX Conference in Chicago, IL, on April 19-22. This primarily PC-related computer conference provided interesting discussions on Y2K legal ramifications, product offerings, security improvements, and general market trends.

IEEE MetaData Conference

National Climatic Data Center employee Anne Viront-Lazar attended the Third Institute of Electrical and Electronic Engineers MetaData Conference in Bethesda, MD, during April. She was the principal author of a poster session paper entitled "Advancements in the Integrated Management of Site Metadata for Multi-Agency Weather/Climate Data Networks," and co-author of a paper presented by the Southeastern Regional Climate Center entitled "Metadata for the Unified Climate Access Network."

NASA Meeting Attended

National Climatic Data Center (NCDC) employee Sam McCown attended the National Aeronautics and Space Administration (NASA) Distributed Active Archive (DAAC) User Services Working Group (USWG) Meeting held at the EROS Data Center at Sioux Falls, SD, on April 13-15. The meeting focused on DAAC outreach procedures and plans. Sam presented samples of NCDC's Web pages as examples of how the Internet can be used in educational outreach. The USWG reacted favorably to the idea as most of their outreach had been through brochures, posters, and CD-ROM's.

Federal Depository Library Conference

John Hughes represented the National Climatic Data Center (NCDC) at the 1999 Federal Depository Library Council Meeting in Bethesda, MD. John gave a presentation on the services NCDC provides to the Depository Libraries. The presentation included an overview of NCDC, highlighting on-line services and the new CD-ROM containing NCDC's serial publications. There were over 80 speakers and the meeting was attended by nearly 600 of the 1,300 Depository Libraries.

✦ Other Contacts

Panamanian Climatic Data

The National Climatic Data Center (NCDC) has been contacted by the Appraisal and Disposition Division of the National Archive Records Agency, and the Panama Canal Department of Information and Management, to initiate transfer of digital and paper records of meteorological observations to NCDC. They should be received within the next two months. The records contain data for the Panama Canal zone from 1860 to the present. Included also are watershed rainfall data for a shorter period.

EMPLOYEE ACTIVITIES

✦ EEO and Community Outreach

1999 United Way Citizen's Review Panel

National Climatic Data Center employee John Hughes completed work on the United Way Citizen's Review panel reviewing the Asheville-Mountain Chapter of the American Red Cross. The panel was given a presentation by board members of the Red Cross who responded to a list of questions generated from earlier meetings. After the presentation, the panel came up with a suggested funding proposal and two fall back funding positions. The Committee Chair and Co-chair will present the funding suggestions in a meeting of other funding review panels in May.

Greater Asheville Public Service Steering Committee

John Hughes is representing the National Climatic Data Center (NCDC) as a member of the Greater

Asheville Public Service Steering Committee. The committee is preparing for this year's Excellence in Public Service Awards breakfast which will be held at the University of North Carolina-Asheville, May 26th. The Federal Review Panel met on April 28th and the Blue Ribbon Panel will meet on May 6th to select the winners in each of the ten categories, and to select the Asheville-Buncombe Public Employee of the year.

Outreach

Greg Hammer represented the National Climatic Data Center (NCDC) at the Enka Middle School Career Day on April, 22, 1999. Approximately, 1,000 Enka Middle School students and 50 faculty and staff members attended the Career Day. Several dozen exhibitors discussed their trade or occupation. Greg distributed National Oceanic and Atmospheric Administration and NCDC literature including weather cubes, severe weather safety booklets and Internet address bookmarks. A demonstration of creating a "tornado in a bottle" was very well received.

✦ Training

Help Desk / Info Desk Seminar

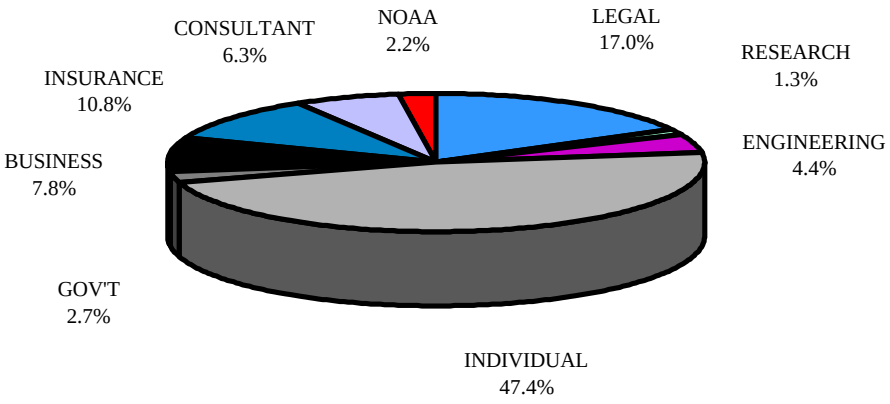
John Fauerbach and Steve Evans presented training sessions to 50+ Center personnel on the use of Help Desk and Info Desk via Web browsers. Several new categories have been added for entering requests for assistance and also for posting tips for use of existing products or services.

Survey Feedback Action

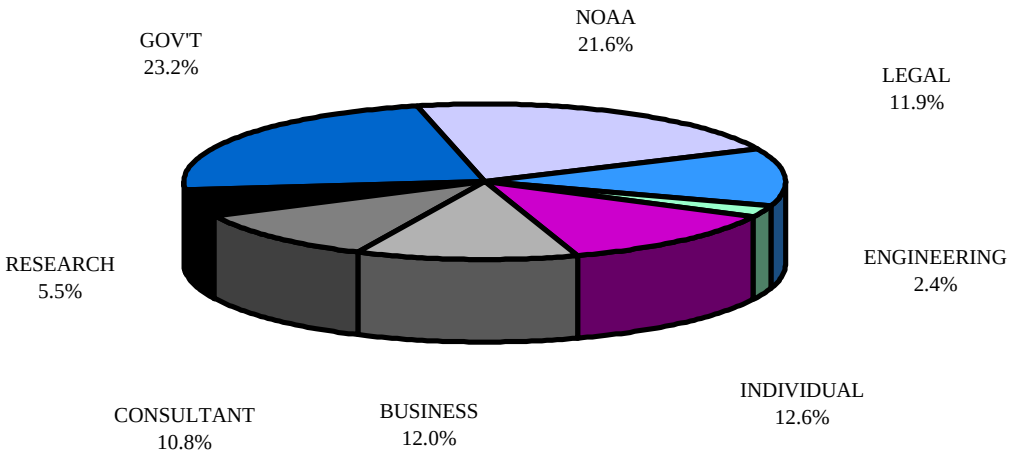
Charles Hicks of HRD Consultants has been selected as the facilitator for the remaining Survey Feedback Action workgroup meetings to be held May 27 and 28 at the National Climatic Data Center.

The following charts and graphs show the latest National Climatic Data Center user and data statistics.

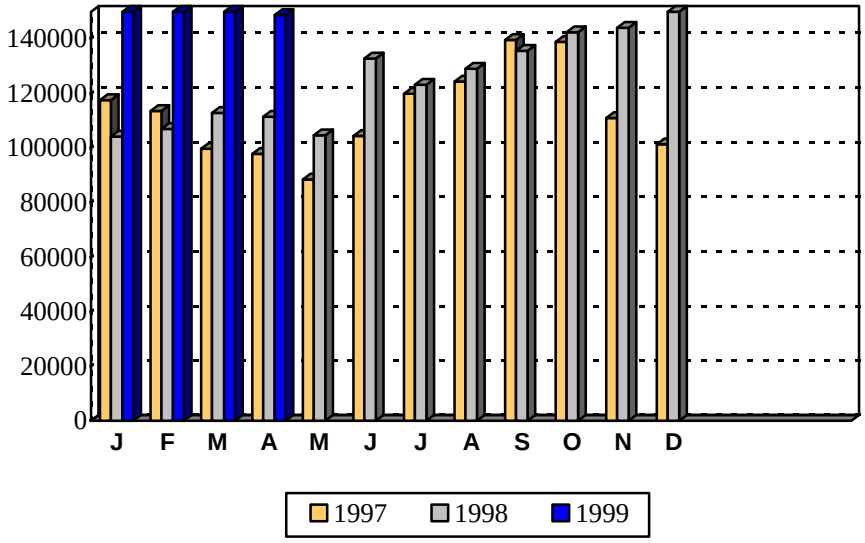
Customer Profile Based on Orders



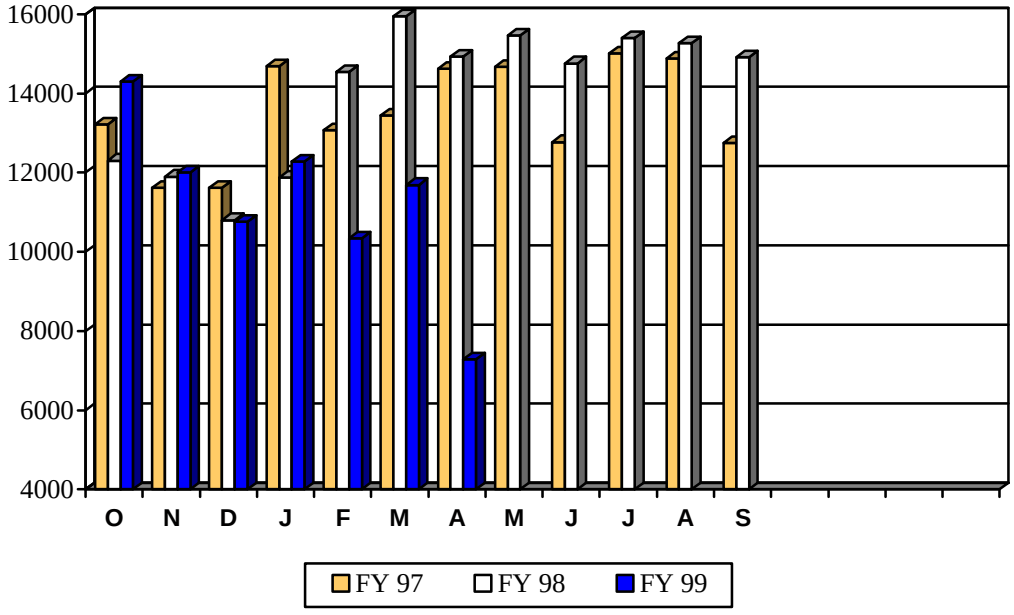
Customer Profile Based on Order Cost

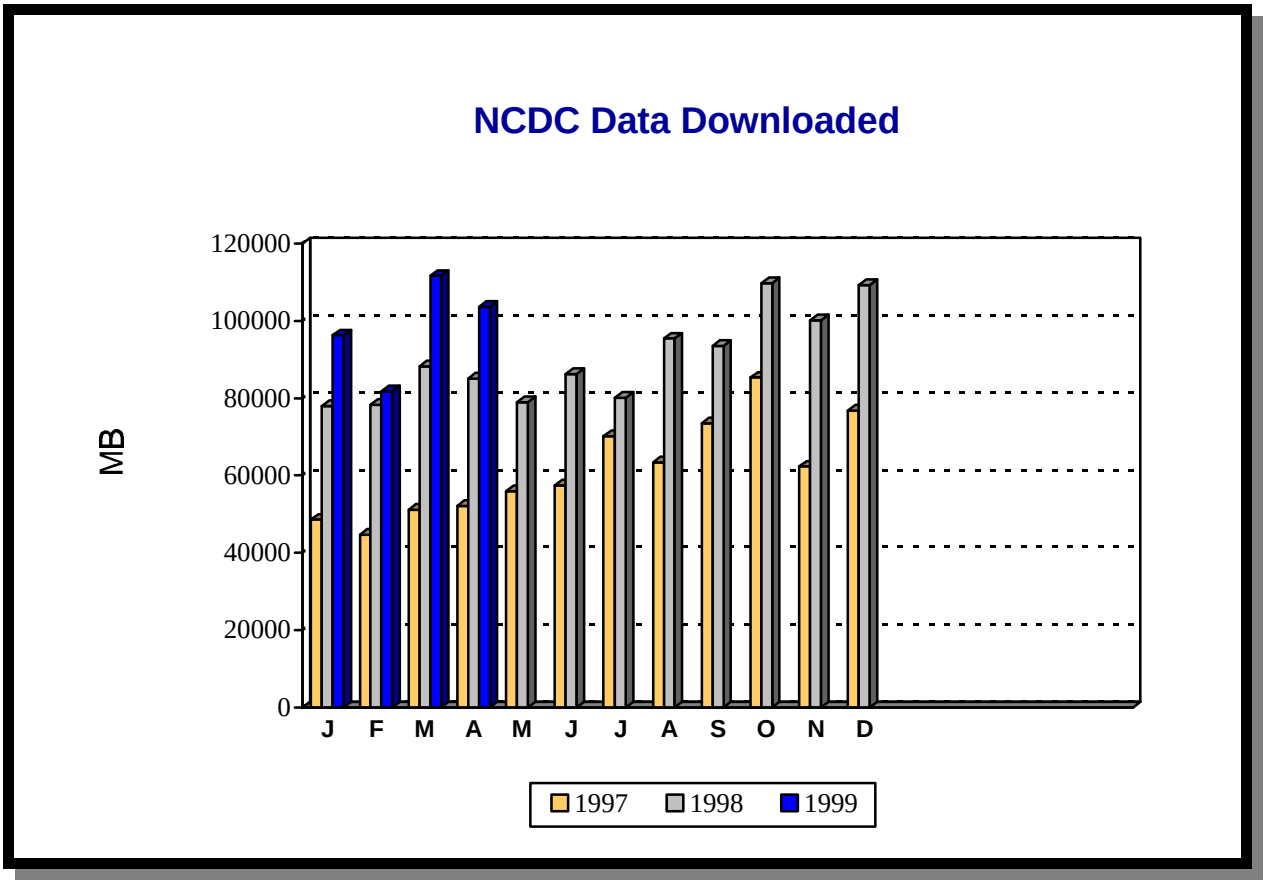


NCDC On-Line Users



NCDC Off-Line Customer Contacts

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